
West Nile Virus

Definition: Respondents who answered “no” to the question “Did you take any precautions this past summer to protect yourself from contracting West Nile Virus?”

Prevalence of No West Nile Virus Precautions

- South Dakota 43.9%
- There is no nationwide median for no West Nile Virus precautions

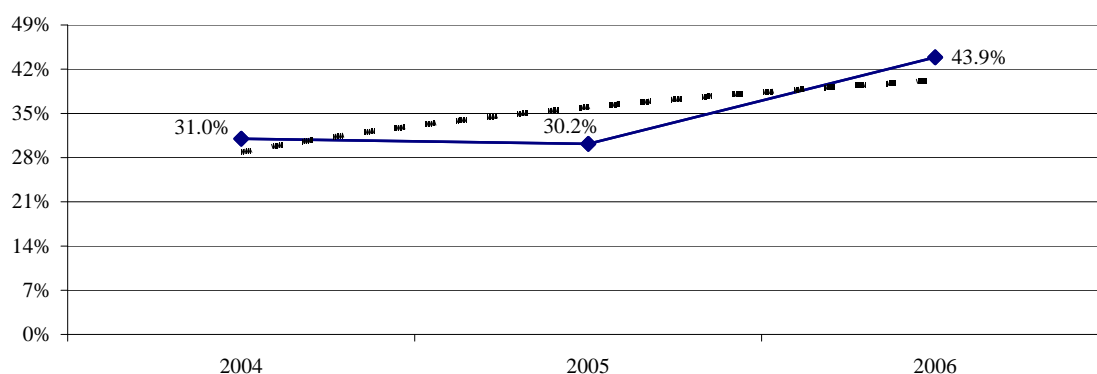
Healthy People 2010 Objective

There was no stated Healthy People 2010 Objective for no West Nile Virus precautions.

Trend Analysis

Since this question was first asked in 2004, the percent of respondents who do not take precautions against West Nile Virus has been increasing. Recently, there was a sharp increase from 30.2 percent in 2005 to 43.9 percent in 2006.

Figure 57
Percent of Respondents Who Do Not Take Precautions against West Nile Virus, 2004-2006



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2004-2006

Demographics

Gender Males exhibit a significantly higher prevalence of those not taking any precautions to protect against West Nile Virus than females. This gender difference is evident across several demographics including whites, those in the higher income groups, and those in the higher education groups.

Age The prevalence of those not taking any West Nile Virus precautions doesn't seem to have an overall strong association with age. However, a significant increase in precautions is noted as the 25-34 age group is reached, while a significant decrease in precautions is shown as the 75 and older age group is reached.

Race There is no racial difference observed from the available data.

Region	The central and west regions demonstrate a very high prevalence for the lack of West Nile Virus precautions, while the American Indian counties region shows a very low prevalence.
Household Income	Lack of West Nile Virus precautions does not seem to have an overall association with household income.
Education	Lack of West Nile Virus precautions decreases as education increases. This association is more evident in females.
Employment Status	Those who are self-employed or retired exhibit a very high prevalence of no West Nile Virus precautions, while those who are employed for wages or a homemaker show a very low prevalence.
Marital Status	Those who have never been married demonstrate a very high prevalence of no West Nile Virus precautions, while those who are married show a very low prevalence.

Table 68 Respondents Who Did Not Take Any Precautions Against West Nile Virus, 2006									
	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Total	6,388	43.9	(42.2-45.6)	2,462	50.9	(48.2-53.5)	3,926	37.2	(35.2-39.4)
Age									
18-24	248	52.8	(45.6-59.9)	103	58.8	(47.9-68.8)	145	46.8	(37.4-56.4)
25-34	712	36.4	(32.3-40.7)	275	46.8	(40.1-53.6)	437	25.2	(20.9-30.1)
35-44	994	37.3	(33.8-41.0)	397	47.2	(41.6-52.8)	597	27.5	(23.6-31.9)
45-54	1,366	44.3	(41.2-47.5)	562	49.4	(44.5-54.3)	804	39.4	(35.6-43.4)
55-64	1,130	43.6	(40.2-47.0)	474	49.6	(44.5-54.7)	656	37.4	(33.3-41.7)
65-74	911	43.7	(40.0-47.5)	340	48.3	(42.4-54.4)	571	39.9	(35.3-44.7)
75+	970	53.4	(49.7-57.1)	293	60.8	(54.3-67.0)	677	48.7	(44.4-53.1)
Race									
White	5,715	43.9	(42.2-45.7)	2,216	50.9	(48.1-53.6)	3,499	37.4	(35.2-39.6)
American Indian	485	36.9	(30.2-44.2)	172	39.8	(29.2-51.5)	313	34.1	(26.2-43.0)
Region									
Southeast	1,425	42.5	(39.2-45.7)	549	49.3	(44.3-54.4)	876	35.9	(31.9-40.0)
Northeast	1,551	43.1	(40.0-46.3)	581	47.2	(42.2-52.2)	970	39.5	(35.6-43.5)
Central	1,304	45.3	(42.0-48.7)	505	55.0	(49.5-60.3)	799	36.0	(32.2-40.0)
West	1,461	48.1	(44.8-51.4)	568	57.0	(51.9-61.9)	893	39.6	(35.7-43.6)
American Indian Counties	647	35.0	(29.2-41.3)	259	41.9	(32.5-52.0)	388	27.5	(21.9-33.9)
Household Income									
Less than \$10,000	299	49.8	(41.3-58.4)	*	*	*	*	*	*
\$10,000-\$14,999	382	43.3	(36.0-50.9)	106	56.1	(42.8-68.7)	276	36.9	(28.8-45.9)
\$15,000-\$19,999	480	47.2	(40.0-54.5)	152	58.4	(46.1-69.8)	328	38.7	(31.1-46.8)
\$20,000-\$24,999	536	48.6	(42.6-54.6)	192	59.8	(50.2-68.7)	344	38.9	(31.6-46.7)
\$25,000-\$34,999	874	45.6	(40.9-50.4)	372	50.0	(43.0-57.0)	502	40.9	(34.6-47.4)
\$35,000-\$49,999	1,096	42.4	(38.8-46.1)	466	47.0	(41.5-52.6)	630	37.5	(32.9-42.3)
\$50,000-\$74,999	1,000	39.8	(35.9-43.8)	461	46.9	(41.3-52.6)	539	31.5	(26.4-37.1)
\$75,000+	888	42.4	(38.5-46.5)	441	50.4	(44.7-56.1)	447	31.7	(26.7-37.1)
Education									
8th Grade or Less	266	55.6	(48.1-62.8)	111	62.0	(50.6-72.2)	155	49.3	(39.6-59.1)
Some High School	319	50.1	(41.6-58.5)	121	52.3	(40.3-64.0)	198	48.0	(36.1-60.2)
High School or G.E.D.	2,047	45.5	(42.5-48.6)	817	53.0	(48.3-57.6)	1,230	37.8	(34.1-41.6)
Some Post-High School	1,782	43.1	(39.8-46.4)	628	49.3	(43.8-54.8)	1,154	37.8	(34.0-41.7)
College Graduate	1,962	41.1	(38.3-43.9)	777	49.0	(44.6-53.4)	1,185	33.4	(30.2-36.9)

Table 68 (continued)
Respondents Who Did Not Take Any Precautions Against West Nile Virus, 2006

	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Employment Status									
Employed for Wages	3,113	41.4	(39.0-43.8)	1,163	46.9	(43.2-50.7)	1,950	36.0	(33.2-39.0)
Self-employed	881	49.9	(45.6-54.1)	572	57.4	(52.2-62.4)	309	30.5	(24.9-36.8)
Unemployed	172	43.8	(33.4-54.8)	*	*	*	*	*	*
Homemaker	388	32.8	(27.4-38.8)	*	*	*	*	*	*
Retired	1,482	50.3	(47.4-53.3)	521	56.2	(51.3-60.9)	961	45.7	(42.1-49.4)
Unable to Work	259	43.8	(34.7-53.3)	*	*	*	*	*	*
Marital Status									
Married/Unmarried Couple	3,819	41.2	(39.3-43.1)	1,619	47.8	(44.9-50.7)	2,200	34.6	(32.2-37.1)
Divorced/Separated	831	45.9	(41.6-50.3)	313	54.0	(46.8-60.9)	518	39.8	(34.8-45.1)
Widowed	989	45.6	(42.1-49.2)	143	57.2	(47.9-66.1)	846	43.3	(39.5-47.2)
Never Married	729	52.5	(46.8-58.1)	379	59.1	(51.5-66.2)	350	43.1	(34.9-51.6)

Note: *Results based on sample sizes less than 100 have been suppressed.

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2006

Further Analysis

Following are data illustrating the percent of respondents who have not taken precautions against West Nile Virus for various health behaviors and conditions. For example, 51.5 percent of respondents who stated they do not have a leisure time physical activity have not taken precautions against West Nile Virus, while 41.6 percent of respondents who have a leisure time physical activity have not taken precautions against West Nile Virus.

Table 69
No Precautions Taken Against West Nile Virus for Selected Health Behaviors and Conditions, 2006

Health Behavior or Condition	# Respondents	% No Precautions Against West Nile Virus	95% CI
Obese (BMI = 30.0+)	1,638	41.4	38.3-44.7
Overweight (BMI = 25.0-29.9)	2,335	44.4	41.7-47.3
Recommended Weight (BMI = 18.5-24.9)	2,006	44.0	40.9-47.2
No Leisure Time Physical Activity	1,653	51.5	48.0-54.9
Leisure Time Physical Activity	4,729	41.6	39.6-43.5
Not Heard of "Healthy South Dakota" Program	3,885	47.5	45.3-49.7
Heard of "Healthy South Dakota" Program	2,412	37.5	34.9-40.1
Current Smoker	1,192	47.3	43.1-51.6
Former Smoker	1,763	41.7	38.7-44.7
Never Smoked	3,420	43.6	41.3-45.9
Smokeless Tobacco Use	298	54.4	46.7-61.9
No Smokeless Tobacco Use	6,087	43.2	41.5-44.9
Diabetes	575	40.6	35.8-45.6
No Diabetes	5,811	44.1	42.3-45.9
Current Asthma	462	38.9	32.6-45.5
Former Asthma	168	46.1	35.5-57.1
Never Had Asthma	5,725	44.3	42.5-46.1
No Mammogram within Past Two Years (40+)	763	46.3	42.0-50.6
Mammogram within Past Two Years (40+)	2,238	36.6	34.3-39.0
No Clinical Breast Exam within Past Two Years	842	47.8	42.9-52.8
Clinical Breast Exam within Past Two Years	3,040	34.5	32.3-36.8

Table 69 (continued)
No Precautions Taken Against West Nile Virus for Selected Health Behaviors and Conditions, 2006

Health Behavior or Condition	# Respondents	% No Precautions Against West Nile Virus	95% CI
No Pap Smear within the Past Three Years	492	54.8	48.1-61.4
Pap Smear within the Past Three Years	2,352	33.7	31.1-36.3
No PSA Test within the Past Two Years (40+)	773	54.4	50.2-58.6
PSA Test within the Past Two Years (40+)	1,035	47.8	44.3-51.3
No Digital Rectal Exam within the Past Two Years (40+)	821	52.2	48.1-56.2
Digital Rectal Exam within the Past Two Years (40+)	1,048	49.4	45.9-53.0
Prostate Cancer (40+)	100	60.5	49.4-70.7
No Prostate Cancer (40+)	1,790	50.3	47.6-53.1
No Blood Stool Test within the Past Two Years (50+)	2,762	47.8	45.6-50.0
Blood Stool Test within the Past Two Years (50+)	853	40.9	37.1-44.8
Never Had a Sigmoidoscopy or Colonoscopy (50+)	1,617	48.1	45.2-51.1
Ever Had a Sigmoidoscopy or Colonoscopy (50+)	2,044	44.9	42.4-47.4
Diagnosed with Cancer in the Past 12 Months	153	40.4	31.5-49.9
Not Diagnosed with Cancer in the Past 12 Months	6,218	44.0	42.3-45.7
Drank Alcohol in Past 30 Days	3,266	44.7	42.4-47.0
No Alcohol in Past 30 Days	3,111	42.7	40.2-45.2
Binge Drinker	838	50.1	45.3-54.8
Not a Binge Drinker	5,411	42.2	40.4-44.0
Heavy Drinker	199	53.5	44.1-62.6
Not a Heavy Drinker	6,039	43.2	41.5-44.9
No Health Insurance (18-64)	403	53.4	46.0-60.5
Health Insurance (18-64)	4,012	41.6	39.5-43.7
Employer Based Health Insurance Coverage (18-64)	2,705	40.5	38.0-42.9
Private Health Insurance Plan (18-64)	567	47.6	42.3-52.9
Medicare (18-64)	124	38.4	28.0-50.1
Medicaid or Medical Assistance (18-64)	168	44.2	32.9-56.1
The Military, CHAMPUS, TriCare, or the VA (18-64)	171	49.7	40.7-58.7
The Indian Health Service (18-64)	221	26.6	18.9-36.1
No Flu Shot (65+)	500	58.0	52.9-62.9
Flu Shot (65+)	1,376	45.6	42.5-48.7
No Pneumonia Shot (65+)	627	54.1	49.5-58.6
Pneumonia Shot (65+)	1,192	45.7	42.4-49.0
Haven't Been to the Dentist in the Past Year	2,041	48.8	45.8-51.9
Been to the Dentist in the Past Year	4,324	41.7	39.7-43.7
Sometimes/Seldom/Never Wear Seat Belt	1,117	54.3	50.1-58.4
Always/Almost Always Wear Seat Belt	5,261	41.4	39.6-43.3
Previously Had a Heart Attack	426	47.9	42.2-53.6
Never Had a Heart Attack	5,940	43.6	41.8-45.4
Have Angina or Coronary Heart Disease	375	44.3	38.4-50.3
Do Not have Angina or Coronary Heart Disease	5,962	43.8	42.1-45.6
Previously Had a Stroke	235	53.2	45.0-61.3
Never Had a Stroke	6,147	43.7	41.9-45.4
Fair or Poor Health Status	953	45.9	41.8-50.1
Excellent, Very Good, or Good Health Status	5,414	43.6	41.8-45.4
Physical Health Not Good for 30 Days of the Past 30	415	51.0	44.3-57.6
Physical Health Not Good for 0-29 Days of the Past 30	5,859	43.4	41.7-45.2
Mental Health Not Good for 20-30 Days of the Past 30	342	50.9	43.6-58.2
Mental Health Not Good for 0-19 Days of the Past 30	5,955	43.6	41.8-45.3

Table 69 (continued) No Precautions Taken Against West Nile Virus for Selected Health Behaviors and Conditions, 2006			
Health Behavior or Condition	# Respondents	% No Precautions Against West Nile Virus	95% CI
Usual Activities Unattainable for 10-30 Days of the Past 30	436	48.0	41.2-54.8
Usual Activities Unattainable for 0-9 Days of the Past 30	5,896	43.6	41.8-45.3
Dissatisfied / Very Dissatisfied with Life	232	47.1	39.1-55.3
Satisfied / Very Satisfied with Life	6,120	43.7	42.0-45.5
Physical, Mental, or Emotional Disability	1,480	44.3	41.0-47.7
No Physical, Mental, or Emotional Disability	4,887	43.7	41.7-45.6
Disability with Special Equipment Needed	513	49.6	44.0-55.2
No Disability with Special Equipment Needed	5,872	43.5	41.8-45.3
Injured in a Fall (45+)	229	48.5	40.7-56.4
Not Injured in a Fall (45+)	4,177	45.8	44.0-47.6
Never Been Tested for HIV (18-64)	3,505	43.8	41.5-46.1
Been Tested for HIV (18-64)	883	38.0	33.7-42.5
Military Veteran	957	49.5	45.5-53.5
Not a Military Veteran	5,426	42.9	41.0-44.8

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2006

Table 70, below, displays the respondents who took any precautions during the summer to protect themselves from contracting West Nile Virus. For all years, nearly always and sometimes were the highest responses.

Table 70 Respondents Who Took Any Precautions This Past Summer to Protect Themselves from Contracting West Nile Virus, 2004-2006						
	2006		2005		2004	
Frequency of Being Outdoors in the Summer Evenings	# Respondents	Percent	# Respondents	Percent	# Respondents	Percent
Always	1,116	53.3	1,407	68.0	1,008	64.8
Nearly always	2,346	61.0	2,324	72.6	1,886	71.6
Sometimes	2,052	54.9	1,937	71.9	1,859	71.5
Seldom	680	48.8	799	64.1	989	67.9
Never	184	37.3	196	43.7	223	40.0

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2004-2006

Table 71, below, lists precautions taken to avoid contracting West Nile Virus. Use of mosquito repellent was the top precaution taken in 2006, 2005, and 2004 with 53.1 percent, 66.3 percent, and 64.2 percent, respectively. Less than 30 percent of respondents stated they avoided outdoor activities for all years.

Table 71 Precautions Taken to Avoid Contracting West Nile Virus, 2004-2006			
	2006	2005	2004
Use mosquito repellent	53.1%	66.3%	64.2%
Check property for places mosquitoes can breed	39.1%	49.3%	49.7%
Wear long pants and long sleeved shirts	28.9%	37.6%	43.4%
Avoid outdoor activities	17.2%	27.0%	28.3%

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2004-2006